

Re: LT spice params

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- *From:* Jim Thompson <To-Email-Use-The-Envelope-Icon@xxxxxxxxxxxxxxxxx>
 - *Date:* Wed, 13 May 2009 14:53:31 -0700
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On Wed, 13 May 2009 14:35:56 -0700, Joerg
<notthisjoergsch@xxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

Jon Kirwan wrote:

On Wed, 13 May 2009 13:44:37 -0700, Joerg
<notthisjoergsch@xxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

Jon Kirwan wrote:

[...]

Yes. At the time, I was just going to college and was paying my own way (no money within our family and I was the oldest.) I had read the article on the Mark 8 Personal Minicomputer in Radio Electronics in 1974, but didn't feel ready/competent/money-flush to go for it at the time. Then I saw the articles and ads that followed a little later in Popular Electronics for the MITS ALTAIR 8800 and I went for it. Bought the system (with just 256 bytes of memory) without a power supply or any memory to fit the other three 256x8 static ram sockets on the main board because I couldn't afford to add either. A simple power supply was about my level of design skill as a hobbyist, so I did that part. I also was being paid part time to solder probes for Tektronix to help

Re: LT spice params

pay my way, so soldering I could also do. In no way was I prepared for what happened when I finally splurged and later on (when they became available) bought their 4k dynamic ram cards. They didn't function and I was nearly in tears because of my lack of skill to do more than solder them up. I spent the next 6-7 weeks learning and eventually was able to work out the patches to make with the help of someone's scope and the thoughts of the few friends in my age group that I had at the time. In the process, I paid dearly in emotion but also learned some digital and enough analog to actually do something about the problems. I wouldn't put anyone through that, intentionally. But in the end, I wound up having a story written about me in a suburban, local newspaper which I didn't deserve but I suppose happened more because at the time such things just didn't happen to "regular folks," so it was a nice personal-interest story for them. I don't know how they found out. But I just felt very embarrassed about the whole thing.

I have very mixed feelings about that period. I suppose most of us do about when we were just getting past the idea of being 18 years old, though.

We all went through that, although not nearly as hard as you. I vividly remember having scratched together all my money and buying one (!) VMOS FET that could be used as a power amp up to 100MHz. I thought that it can't be much of a stretch from there to 145MHz, that datasheets were always way too conservative, that I'd already wrestled a reliable kilowatt out of five TV flyback tubes and therefore was quite invincible and yada, yada, yada. Built the amp, worked. Yeehaw! After

Re: LT spice params

about 10mins
of radio conversations ... phut ... *POP*

I'm not sure if you were here in the US when you were that young, or not. At the time when I was growing up, welfare simply didn't exist (yes, it existed on paper but there was almost no expenditure at all and what little of it existed didn't apply to me.) I worked the fields as a child just to eat, literally. And had zero health care. Not possible. Lived in a home without walls, etc. You get the idea. Not a lot of extras.

I remember you writing about that, could have been in the MSP430 group.

It was in Germany. My parents were (and are) great but kids back then didn't have the financial resources as today and I wasn't the only child in the family. 50–100 Deutschmarks for a lone electronic part like a transistor was outrageous, don't remember the exact amount but it drew my piggybank straight down to zero. Stuff was a whole lot more expensive over there.

I improved upon my public education by going to the libraries, so I consider them like gold today. They are the ONLY true safety net that exists for those willing to work for their own science education and where otherwise "the system" fails them here in the US. Schools may not be well funded or have other problems in attracting and holding excellent science teachers. Your own family may be a mess and unable to cope with or even understand how to try. Everything else can go crumbling around you, but the one thing left that is out there which you yourself can control (if they exist in your area, at all) is your access to a library system. With that, even a child can compensate a bit for all of the other failures. The library is a golden community resource that should always be well funded. Period. It saved my ass and allowed me to get to the point where I could achieve an 800 on the SAT math section and could qualify for scholarships. Believe me, I support the library system here now. Maybe people don't use it or need it quite the way I did, but I like just knowing that it is there — it represents something to me, a kind of last fall-back position for an educated society.. that last educational safety net that can catch a child when every other part fails. And using it doesn't require adult-level skill sets, mostly just what you can acquire through even the most mediocre public education system.

I spent whole afternoons in the library and probably there wasn't one week in my youth when I didn't have at least one checked-out textbook at

Re: LT spice params

home. Four weeks max back then, one extension but only if nobody else had dibs on it (someone usually did). Our library wasn't good for techies, didn't have much. The better one was about five miles away and one challenge was to get the books there or back home without them becoming wet in the rain on the bicycle.

Lately I donated technical books that I could spare, still very much current. Once I had to look up a radar equation, so went to the local library with notepad in hand to look for "my" book. Not there. Seems they send them on to universities or bigger libraries which is quite sad. There was no other book on their shelves that even remotely teaches beamforming and Doppler. Most aisles have novels or thrillers :-)

But when all this came about, I was paying for my own rent, food, working as much as I could handle while also going to school, etc. I had a very hard time coming up with the 2 times \$295 it cost me to buy those two dynamic ram cards. That money wasn't just slush funds -- it literally put me at risk and took food off the table and health care out of reach, should I have needed it. It was serious. There was very little of a safety net for folks like me, then. I gambled. And came up short, for a time. And learned something in the process, too.

Yikes! I didn't have that kind of money back then. Well, once I did. Worked my butt off at a meat processing plant, grueling work and definitely not for the faint of heart but paid about \$4/hr which was a fortune. This was so I could buy a used and quite banged up ham radio transceiver after getting my license (a Heathkit HW-100). Pa had to drive my to the seller because it was too heavy to schlepp onto a train.

And I had to trudge thru the snow to get to both high school _and_ MIT... uphill both ways ;-)

Worked part-time as a technician at MIT making, on average, \$20/week.

...Jim Thompson

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James E. Thompson, P.E.	mens
Analog Innovations, Inc.	et
Analog/Mixed-Signal ASIC's and Discrete Systems	manus
Phoenix, Arizona 85048 Skype: Contacts Only	
Voice:(480)460-2350 Fax: Available upon request	Brass Rat
E-mail Icon at <http://www.analog-innovations.com>	1962

Stormy on the East Coast today... due to Bush's failed policies.